

WHAT IS CLAIMED IS:

- 1     1.    An attachment for a power drill, said attachment comprising  
2           an attachment bushing (18) secured to said power drill, a  
3           latching unit (7) for securing said attachment to a support  
4           (12), a feed advance mechanism (4) for driving said power  
5           drill in a feed advance direction, said latching unit (7)  
6           comprising a latch bushing (19) for cooperation with said  
7           attachment bushing (18), said feed advance mechanism (4)  
8           comprising an operating member (5) and a feed advance  
9           controller (6, 8) operatively connected to said operating  
10          member (5) and to said latch bushing (19) for applying a  
11          feed advance motion to said power drill.
  
- 1     2.    The attachment of claim 1, wherein said operating member  
2           (5) comprises a feed advance lever which is operatively  
3           mounted relative to said power drill for ergonomic access  
4           by an operator to the feed advance lever.
  
- 1     3.    The attachment of claim 1, wherein said feed advance  
2           controller (6) comprises a Bowden cable pull having two  
3           cable ends (8A, 8B) secured to said latch bushing (19) at  
4           two respective connection points.
  
- 1     4.    The attachment of claim 3, further comprising two guide  
2           sleeves (9A, 9B) one each for said two cable ends (8A, 8B),  
3           said guide sleeves being secured to said attachment bushing

(18) in positions for guiding said cable ends to said respective connection points on said latch bushing.

5. The attachment of claim 1, wherein said latch bushing (19) is adapted for cooperation with a drill bit guide bushing (3) operatively secured to said support (12) in a position for drilling a hole (11) in a workpiece, and wherein said latching unit (7) comprises means for releasably latching said latch bushing (19) to said drill bit guide bushing (3).

6. The attachment of claim 5, wherein said means for releasably latching comprise a wedging chuck operatively interposed between said latch bushing (19) and said drill bit guide bushing (3) for latching said power drill to said drill bit guide bushing (3) by a friction fit.

7. The attachment of claim 5, wherein said latch bushing (19) comprises a front end (21) and a rear end (20), wherein said means for releasably latching comprise a locking ring (24) movably mounted to said front end (21) of said latch bushing (19) and a ball ring (25) mounted in said front end (21) for simultaneous cooperation with said locking ring (24) and with said guide bushing (3) in response to an operation of said locking ring (24), and wherein said feed advance controller (6, 8) is connected to said locking ring (24) for moving said locking ring (24) into a locking position by moving said operating member (5), whereby said

locking ring (24) engages and drives said ball ring (25) into engagement with said guide bushing (3) for releasably latching said latch bushing (19) to said drill bit guide bushing (3) with a form-locking fit.

8. The attachment of claim 1, wherein said latch bushing (19) comprises a front end 21 adapted for cooperation with a guide channel or bore (13) in a clamping member (12) forming said support for holding a workpiece (14), said front end (21) fitting lockingly into said guide channel (13) for latching said attachment to said clamping member (12) (Fig. 4).

9. The attachment of claim 1, wherein said latch bushing (19) comprises a stop member (28) for limiting said feed advance motion of said attachment bushing (18) relative to said latch bushing (19).

10. The attachment of claim 9, wherein said stop member (28) is a flange or ring rotatable relative to said latch bushing (19) for adjusting a stop position of said stop member (28) to thereby adjust a drilling depth.

11. The attachment of claim 1, further comprising a reset spring (22) operatively interposed between said latch bushing (19) and said attachment bushing (18) for returning said power drill into a starting position when said feed advance motion is stopped.

1     **12.** An apparatus for drilling holes into a workpiece, said  
2     apparatus comprising a power drill, an attachment for said  
3     power drill, said attachment comprising an attachment  
4     bushing (18) secured to said power drill, a support (12),  
5     a latching unit (7) for securing said attachment to said  
6     support, a feed advance mechanism (7) for driving said  
7     power drill in a feed advance direction, said latching unit  
8     (7) comprising a latch bushing (19) for cooperation with  
9     said attachment bushing (18), said feed advance mechanism  
10    (7) comprising an operating member (5) and a feed advance  
11    controller (6, 8) operatively connected to said operating  
12    member (5) for performing a feed advance motion of said  
13    power drill, said support comprising a drill bit guide  
14    channel and means for latching said attachment to said  
15    drill bit guide channel.

1     **13.** The apparatus of claim 12, wherein said support (12)  
2     comprises a workpiece clamping device.

1     **14.** The apparatus of claim 12, wherein said support (12)  
2     comprises a clamping template for holding a workpiece, said  
3     clamping template comprising predrilled holes adapted for  
4     axial alignment with said drill bit guide channel.

1     **15.** The apparatus of claim 12, wherein said drill bit guide  
2     channel comprises a drill bit guide bushing (3) mounted to  
3     said support (12) (Figs. 2 and 3).

1     **16.** The apparatus of claim 12, wherein said latch bushing (19)  
2         comprises a front end (21) fitting into said drill bit  
3         guide channel (37) and wherein said means for latching are  
4         operatively interposed between an outer wall surface (36)  
5         of said front end and an inner surface (37) of said guide  
6         channel for releasably latching said attachment to said  
7         guide channel in said support (12).

1     **17.** The apparatus of claim 12, wherein said attachment bushing  
2         (18) and said latch bushing (19) are arranged for  
3         telescoping relative to each other in response to an  
4         operation of said operating member (5).

1     **18.** A method for operating an apparatus for drilling holes into  
2         a workpiece, said method comprising the following steps:  
3         a) establishing a rigid connection between a drill bit  
4             guide channel (3, 13) and a latch bushing (19) of a  
5             power drill,  
6         b) starting said power drill, and  
7         c) applying a leveraged feed advance force to said power  
8             drill through a feed advance controller (5, 6, 8).

1     **19.** The method of claim 18, wherein said step (c) is performed  
2         by operating a Bowden cable pull (8, 8A, 8B).